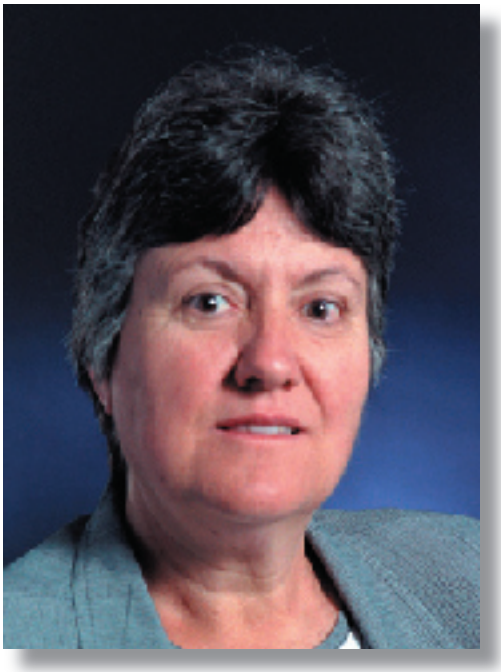

Dr. Judy K. Partin

Development and application of advanced instrumentation for performing unique measurements in industrial process or other real-world environments.

Phone: 208.526.2822
E-mail: judy.partin@inl.gov

Licensing information

For information on licensing INL technologies such as those developed by Dr. Partin, contact the Lead Account Executive for Industrial Processing and Manufacturing:

Jason Stolworthy
Phone: 208.526.5976
E-mail: jason.stolworthy@inl.gov

Education: Dr. Judy K. Partin received her Ph.D. in physics from the Virginia Polytechnic Institute and State University in 1979.

Work experience: For the past 24 years, she has been employed at the Idaho National Laboratory where she has worked in advanced instrumentation, applied optics, and physics groups and participated in the design, development and application of optical instrumentation for a variety of activities. Examples include: the design, characterization and deployment of fiber optic-based instrumentation for monitoring fuel degradation in nuclear reactor (high temperature, high pressure, steam) environments; the development and application of image enhancement techniques for video imagery taken of the damaged Three Mile Island Reactor Core; the development of fiber optic and laser–based sensors for the detection of hazardous materials; the development of an on-line, contaminated dust monitoring system based upon laser-induced breakdown spectroscopy; an investigation of near-infrared, frequency-modulated spectroscopy for process monitoring; and the development of an on-line steam quality monitoring instrument for use in geothermal power plants.

Professional endeavors: Dr. Partin's career interests include development and application of advanced instrumentation for performing unique measurements in industrial process or other real-world environments.

Patents:

U.S. Patent Number 6,407,811 – Ambient Method and Apparatus for Rapid Trace Constituent Analysis

U.S. Patent Number 6,051,436 – Method for the Detection of Nitro-Containing Compositions Using Ultraviolet Photolysis

U.S. Patent Number 6,016,714 – Sensor System for Buried Waste Containment Sites

U.S. Patent Number 5,157,261 – Detection Device for High Explosives

U.S. Patent Number 5,082,630 – Fiber Optic Detector